group having an ionic group, ionizable group, or both, and wherein said arrangement of particles is located in said visual display device or said display media.

10. (Amended) A visual display device or display media comprising a) an arrangement of capsules, wherein an optical response results from the rotation of elements in a fluid within said capsule, wherein a portion of the elements comprises a modified colored pigment having attached at least one organic group having an ionic group, ionizable group, or both; and b) means to cause the controlled rotation of the elements to achieve said optical response, and wherein said arrangement of capsules is located in said visual display device or said display media.

## REMARKS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The amendment to the claims is editorial in nature. The scope of the amended claims have not been altered. The amendment to the claims is made for clarification purposes and to better assist the Examiner in using the language with which the Examiner is more comfortable. Full support for the amendment can be found throughout the present application, including the claims as originally filed. Accordingly, no questions of new matter should arise and entry of the amendment is respectfully requested.

At page 2 of the Office Action, the Examiner rejects claims 2, 18, under 19 and 35 U.S.C. §102(e) at being anticipated by Cooke et al. (U.S. Patent No. 6,479,571). With respect to claims 2 and 19, the Examiner asserts that Cooke et al. discloses a modified carbon product comprising an arrangement of particles, wherein an optical response results from the rotation of the particles in a fluid, and wherein a portion of the particles have

attached at least one organic group having an ionic group, ionizable group, or both. According to the Examiner, the particles of Cooke et al. are carbon black. With respect to claim 18, the Examiner asserts that Cooke et al. shows that the particles are colored pigments and the organic group comprises at least one aromatic group, at least one C1-C100 alkyl group, or mixtures thereof. For the following reasons, this rejection is respectfully traversed.

Claim 2 of the present application recites a visual display device or display media comprising an arrangement of particles, wherein an optical response results from the rotation of the particles in a fluid, and wherein the arrangement of particles is located in the visual display device or display media. Additionally, claim 2 of the present application recites that a portion of the particles have attached at least one organic group having an ionic group, ionizable group, or both.

Cooke et al. relates to elastomeric compositions containing at least one elastomer and a polymer-coated modified carbon product wherein the polymer at least partially coats the modified carbon product. According to Cooke et al., the modified product, preferably, has at least one organic group attached to the carbon product and the organic group is, preferably, substituted with an ionic, ionizable, or polar group. Cooke et al. also describes different methods of making a polymer-coated modified carbon product. However, Cooke et al. does not teach or suggest an arrangement of particles located in the visual display device or display media, or an optical response resulting from the rotation of the particles in a fluid. As such, Cooke et al. does not teach or suggest the claimed invention. Accordingly, the rejection under 35 U.S.C. §102(e) over Cooke et al. should be withdrawn.

At page 3 of the Office Action, the Examiner rejects claim 10 under 35 U.S.C. §103(a) as being unpatentable over Johnson et al. (U.S. Patent 5,922,188) in view of Jacobson et al. (U.S. Patent No. 6,241,921). According to the Examiner, Johnson et al. discloses a modified colored pigment comprising an arrangement of particles, wherein an optical response results from the rotation of the particles in a fluid. According to the Examiner, Johnson et al. states that a portion of the particles have attached at least one organic group having an ionic group, ionizable group, or both. The Examiner acknowledges that Johnson et al. does not disclose the means to cause the controlled rotation. However, the Examiner states that Jacobson et al. discloses a display element with display particles and means for rotating the particles. Accordingly, the Examiner concludes that it would have been obvious to a person having ordinary skill in the art to construct particles having attached at least one organic group with means for rotating the particles for the purpose of displaying color. For the following reasons, this rejection is respectfully traversed.

Claim 10 of the present application recites a visual display or display media comprising of an arrangement of capsules, wherein the arrangement of capsules is located in the visual display device or display media. Furthermore, claim 10 recites that an optical response results from the rotation of elements in a fluid within the capsule, wherein a portion of the elements comprises a modified colored pigment having attached at least one organic group having an ionic group, an ionizable group or both. Additionally, claim 10 of the present application recites means to cause the controlled rotation of the elements to achieve an optical response.

Johnson et al. relates to a colored pigment having attached at least one organic group. According to Johnson et al., the organic group includes at least one aromatic group or a $C_1$-$C_{12}$ alkyl group and at least one ionic group, at least one ionizable group, or a mixture thereof. Also, Johnson et al. describes aqueous and non-aqueous inks and coatings and inkjet ink compositions containing the modified colored pigment. Additionally, Johnson et al. relates to a method to increase the flow of an ink and a method to improve the waterfastness of a print imaged by an ink composition. In sum, Johnson et al. relates to modified colored pigments and inkjet inks, and coatings containing modified colored pigments. Therefore, Johnson et al. is non-analogous art. For this reason alone, the rejection should be withdrawn. Also, Johnson et al. does not relate to a visual display device or display media. Moreover, Johnson et al. does not teach or suggest an arrangement of capsules, wherein an optical response results from the rotation of elements in a fluid within the capsules. Additionally, Johnson et al. does not teach or suggest any means to cause the controlled rotation of the elements to achieve the optical response. Accordingly, Johnson et al. does not teach or suggest the claimed invention.

As stated above, Johnson et al. does not motivate one skilled in the art to make an arrangement of capsules, wherein an optical response results from the rotation of elements in a fluid within the capsule, and means to cause the controlled rotation of the elements to achieve the optical response. Jacobson et al. provides no motivation to provide an arrangement of capsules wherein an optical response results from the rotation of elements in a fluid within the capsules, wherein a portion of the elements comprises a modified colored pigment having attached at least one organic group having an ionic group, ionizable group, or both. Jacobson et al. only describes polymer-coated particles. As stated in Jacobson et

al., the polymer is merely adsorbed onto the surfaces of the pigment particles (column 2, lines 17-25), which is quite different from attaching organic groups onto a pigment as described in the claims of the present application. Additionally, Jacobson et al. (column 2, lines 25-57) refers to polymer-coated particles being fused into a single encapsulated structure. It logically follows that the surface of the element is a conventional polymer coating of some sort, because the polymer completely coats the pigment, and the discrete elements are fused together into a larger structure. In contrast, claim 10 of the present application recites a modified colored pigment having attached at least one organic group. Having an organic group attached to the surface of a pigment is very different from a conventional polymer coating, such as the coating described in Jacobson et al. Accordingly, Jacobson et al. does not teach or suggest the claimed invention. The obviousness rejection should be withdrawn.

Additionally, Jacobson et al. relates to heterogeneous display elements and methods for their fabrication. In contrast, Johnson et al. only relates to modified colored pigments and inkjet inks, inks, and coatings. Thus, the two references are non-analogous to each other. Accordingly, one skilled in the art would not look to inkjet inks, inks, and coatings to make a display. Certainly, one would not combine Jacobson et al. with Johnson et al. In addition, the section of Jacobson et al. relating to the display elements emphasizes the importance of having surface-coated particles. As such, one skilled in the art, by reading Jacobson et al., would conclude that surface-coating the particles is an essential part of the invention of Jacobson et al. Accordingly, one skilled in the art would not substitute the modified colored pigment of Johnson et al. with polymer-coated particles of Jacobson et al.

Accordingly, the rejection under 35 U.S.C. §103(a) over Johnson et al. in view of Jacobson et al. should be withdrawn.

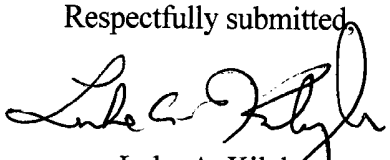
At page 3 of the Office Action, the Examiner indicates that claims 1, 3-9, 11-17, and 22-29 are allowed. Additionally, at page 4 of the Office Action, the Examiner indicates that claims 20 and 21 are objected to but would be allowable if rewritten in independent form. The applicants and the undersigned are appreciative of the indication of allowable subject matter and the indication that claims 20 and 21 would be allowable if rewritten in independent form. The applicants believe that the comments set forth above should convince the Examiner that the rest of the claims are ready for allowance as well.

**CONCLUSION**

In view of the forgoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.137 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

2. (Amended) A visual display device or display media comprising an arrangement of particles, wherein an optical response results from the rotation of said particles in a fluid, wherein a portion of said particles have attached at least one organic group having an ionic group, ionizable group, or both, and wherein said arrangement of particles is located in said visual display device or said display media.

10. (Amended) A visual display device or display media comprising a) an arrangement of capsules, wherein an optical response results from the rotation of elements in a fluid within said capsule, wherein a portion of the elements comprises a modified colored pigment having attached at least one organic group having an ionic group, ionizable group, or both; and b) means to cause the controlled rotation of the elements to achieve said optical response, and wherein said arrangement of capsules is located in said visual display device or said display media.